

# SPRING 2013 Measure Up



Assessment news for elementary school teachers

## Thank You!

Thank you to all students who participated in the National Assessment of Educational Progress (NAEP) 2013 assessments and helped to make it a success. NAEP 2013 included assessments in mathematics and reading in grades 4, 8, and 12. The NAEP 2013 grade 4 assessment was offered to a sample of about 349,000 students at 7,970 schools. Results will be reported in fall 2013.



## A New Focus on Word Meaning

NAEP integrates a measure of students' understanding of word meaning with the measurement of passage comprehension in the NAEP reading assessment. The decision to focus on students' understanding of word meaning emphasized the important role vocabulary plays in the process of reading comprehension. To understand the overall topic or theme, students need to integrate their knowledge of individual words, or a sense of these words, with the way words are used in particular passages. For example, a reader may understand the meaning of "acute" in the context of mathematics to describe the angles of a triangle, but may not have encountered the word used to describe human emotions, as in "acute embarrassment." Having a sense of words that is sufficiently flexible helps readers extend their understanding of the word and understand its use in a new context.

Understanding word meaning has always been essential to reading comprehension. Whether reading the printed page or computer screen, a strong sense of word meaning provides a basis for greater comprehension.

### How did students perform?

Students who scored higher on NAEP vocabulary questions also scored higher in reading comprehension.

Fourth-grade vocabulary scores did not change significantly from 2009 to 2011.

National Center for Education Statistics (2012). *The Nation's Report Card: Vocabulary Results From the 2009 and 2011 NAEP Reading Assessments* (NCES 2013-452). Institute of Education Sciences, U.S. Department of Education, Washington, D.C.

## The Vocabulary Assessment Design

Vocabulary questions appeared in two sections of the NAEP reading assessment: comprehension and vocabulary. The sections differed in the length of the reading texts and in the number of vocabulary questions. The vocabulary questions in the comprehension sections are included within a larger set of questions and are based on longer passages. Examples of vocabulary questions from reading comprehension sections are available at [http://nationsreportcard.gov/reading\\_2011/voc\\_sample\\_quest.asp](http://nationsreportcard.gov/reading_2011/voc_sample_quest.asp).

### VOCABULARY QUESTIONS WERE INCLUDED IN TWO TYPES OF SECTIONS

#### COMPREHENSION

- Full-length passages containing up to 800 words at grade 4.
- Approximately 10 multiple-choice and constructed-response questions, 2 of which were multiple-choice vocabulary questions.

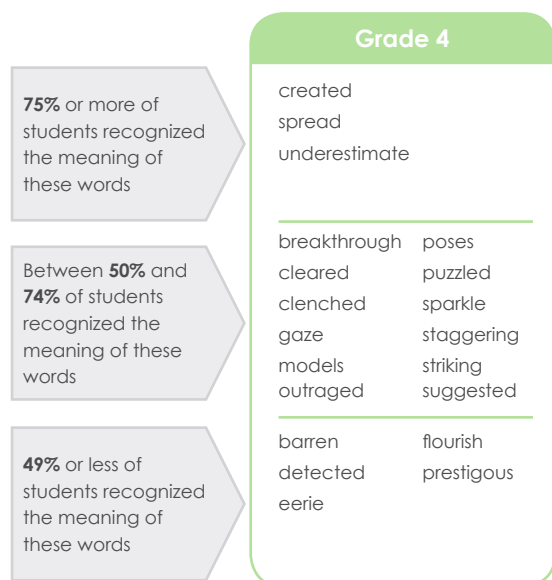
#### VOCABULARY

- Shorter passages containing up to 400 words at grade 4.
- Approximately 5 multiple-choice vocabulary questions.

For more information on assessment design, see the Technical Notes section in *The Nation's Report Card: Vocabulary Results From the 2009 and 2011 NAEP Reading Assessments* (NCES 2013-452). This report is also available at <http://nces.ed.gov/nationsreportcard/pdf/main2011/2013452.pdf>.

## Vocabulary Word List

The chart below shows words from released comprehension and vocabulary sections and the proportion of students at each grade who understood how the words were used to convey meaning.

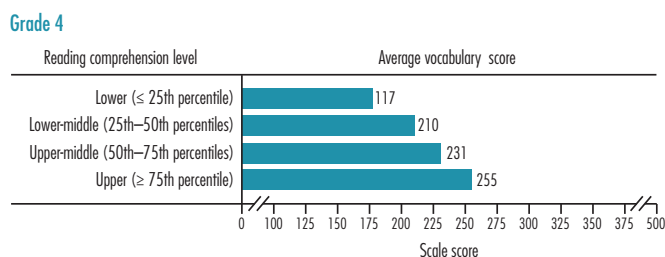


## Reporting NAEP Vocabulary Results

NAEP vocabulary results are reported as the percentage of students who correctly answered vocabulary questions and as average scores on a 0-500 scale for grade 4. While vocabulary results cannot be reported in terms of the NAEP achievement levels (*Basic*, *Proficient*, and *Advanced*), scores are reported to show patterns in results for students performing in the lower (10th and 25th), middle (50th), and higher (75th and 90th ) percentiles.

The figure below shows the average scores in NAEP vocabulary at grade 4 by reading comprehension level.

Average scores in NAEP vocabulary at grade 4 by reading comprehension level: 2011



For more information, go to [http://www.nationsreportcard.gov/reading\\_2011/voc\\_summary.asp](http://www.nationsreportcard.gov/reading_2011/voc_summary.asp).

SOURCE: U.S. Department of Education, Institute of Education sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Reading Assessments.

## NAEP Questions Tool Overview

The NAEP Questions Tool (NQT) provides public access to released items from the NAEP assessments. This includes scoring guides and related student achievement for each question.

The NQT can be used as a test generator and can allow teachers to compare performance of their classes with baseline data for the nation and states. In addition, the NQT can improve professionals' assessment literacy by providing users with quality items that have undergone multiple reviews and analyses prior to use. The NQT also contains interactive items, a Test Yourself section, and item maps to see what students at each achievement level are likely to know and can do.

Below is an example of a fourth-grade item that appeared in the NAEP 2011 mathematics assessment.

A student had to multiply  $328 \times 41$ . The student's answer was 4,598.

Use estimation to explain why this answer is not reasonable.

Below is an example of a real 4th grade student response to the NAEP item. This correct response uses an appropriate estimation strategy to show 4,598 is not a reasonable answer.

328 is rounded to 300. 41 is about 40.  $300 \times 40 = 12,000$ . So if  $n = 328 \times 41$ ,  $n$  would be rounded to 12,000.

Here is another example of a student response to the NAEP item. In this partially correct response, the exact value of the product is computed, but no estimate is made.

$$\begin{array}{r} 1328 \\ \times 41 \\ \hline 328 \\ +13120 \\ \hline 13448 \end{array}$$

Real Answer →

For more examples of NAEP items and real student responses, go to the NQT website at <http://nces.ed.gov/nationsreportcard/itmrlsx/> and click on "Questions Tool." For more information on how to use the NQT, the NQT Quick Reference Guide is available at [http://nces.ed.gov/nationsreportcard/pdf/naep\\_nqt\\_final\\_web.pdf](http://nces.ed.gov/nationsreportcard/pdf/naep_nqt_final_web.pdf). A short video highlighting NQT features and how to use them is available at <http://nces.ed.gov/nationsreportcard/videos/nqtpresentation.asp>.



# NAEP Results

*Get NAEP Results On the Go with the Mobile App*

NAEP at your fingertips! Stats in the palm of your hand! Delve into the latest NAEP news, results, sample questions, brochures, and more. Discover what the nation's students know and can do on the latest NAEP assessments. Learn more about the academic achievement of elementary, middle, and high school students. Are you an educator, parent, or a student? This app is for you. Test yourself and your students.



## Connect with NAEP!

### Learn more about:

- the latest news regarding upcoming assessments and releases;
- tips for using online NAEP tools;
- NAEP questions to test your knowledge compared to that of the nation's students; and
- NAEP publications.

For more information about NAEP, go to <http://nces.ed.gov/nationsreportcard>.



This publication was prepared for the National Assessment of Educational Progress by Westat under contract (ED-07-CO-0083) to the National Center for Education Statistics, U.S. Department of Education.

## Online Resources

### Sample Questions Booklets

Examine the types of questions students will be answering at <http://nces.ed.gov/nationsreportcard/about/booklets.asp>

### Content Area Frameworks

Review the frameworks that guide the development of the NAEP assessment and determine the content to be assessed at <http://nces.ed.gov/nationsreportcard/frameworks.asp>

### Information for Educators

Create your own NAEP test and see what students know and can do at <http://nationsreportcard.gov/educators.asp>

### Information for Students

Allow students to test themselves using NAEP questions at <http://nationsreportcard.gov/students.asp>

### Data Tools

Explore NAEP results with online data tools at [http://nationsreportcard.gov/data\\_tools.asp](http://nationsreportcard.gov/data_tools.asp)